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METHODS AND APPARATUS FOR SENSING MISFIRE IN AN
INTERNAL COMBUSTION ENGINE

ABSTRACT OF THE DISCLOSURE

Methods and apparatus are provided for sensing a misfire in an engine having at least one cylinder and for providing a misfire indication signal in response to the occurrence of the misfire. The apparatus comprises

5 an electronic controller that calculates an expected time period for a cylinder event during which fuel is combusted in a cylinder to provide an expected time period value. The time period of the cylinder event is measured to provide a measured time period value. The difference between the expected time period value and the measured time period value is calculated to provide

10 a difference time period value. The difference time period value is compared to a predetermined threshold time. The misfire indication signal is provided in response to the difference time period value exceeding the predetermined threshold time.